



UNITED STATES PATENT AND TRADEMARK OFFICE

m-f

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,938	11/30/2001	Christopher J. Hansen	BP 1791	5769

7590 10/18/2006
Timothy W. Markison
P.O. Box 160727
Austin, TX 78716-0727

EXAMINER

NGUYEN, TU X

ART UNIT PAPER NUMBER

2618

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,938

Applicant(s)

HANSEN ET AL.

Examiner

Tu X Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-15, 17-30-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-15, 17-30-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 60/260,982.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Applicant's arguments with respect to claims 8, 21 and 33 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-7, 13-14, 17-18, 24-25, 29 and 32, are rejected under 35 U.S.C. 102(b) as being anticipated by Whitehead (US Patent 5,732,077).

Regarding claim 1, Whitehead discloses a method for transmit power control of transmitting wireless device, the method comprises:

transmitting, by the transmitting wireless device, a packet to a targeted wireless device via a wireless channel at a first power level (see col.3 lines 6-17 "power levels" corresponds to "first power level");

determining, by the targeted wireless device, signal strength and decoding error information of the packet received (see col.5 lines 57-64).

determining, by the targeted wireless device, whether the signal strength is within an acceptable range of signals strength (see col.6 lines 49-50).

when the signal strength is not within the acceptable range of signals strengths, determining, by the targeted wireless device, a second power level for the transmitting wireless device such that the signal strength is within the acceptable range of signals strengths (see col.3 lines 6-29); and

transmitting, by the targeted wireless device, a packet indicating the second power level to the transmitting wireless device via the wireless channel (see col.3 lines 5-29).

Regarding claims 24 and 29, Whitehead discloses everything as claim 1. More specifically, AP memory further comprises operational instructions (see col.1 lines 56-57, memory is inherent for storing software to perform wireless communications) that cause the one of the plurality of stations to transmit the packet by: transmitting the packet to include an indicated power level of transmission to identify the first power level (see col.9 lines 48-67 and col.3 lines 5-29).

Regarding claim 2, Whitehead discloses the transmitting the packet further comprises: transmitting the packet to include an indicated power level of transmission by the transmitting wireless device (see Whitehead, col.3 lines 5-29).

Regarding claim 5, Whitehead discloses providing, by the transmitting wireless device, an acknowledgement of receipt of the second power level to the targeted wireless device; and providing, by the transmitting wireless device, an indication of power level adjustment from the first power level to the second power level to the targeted wireless device (see col.9 lines 19-34).

Regarding claims 6-7, Whitehead discloses transmitting, by a station as the transmitting wireless device, the packet to an access point (col.4 lines 45-50) via a wireless channel at a first power level within an 802.11 wireless network; determining, by the access point as the targeted wireless device, the signal strength of the packet, the adequacy of the first power level, and the second power level when the first power level is not adequate (see col.2 line 49 through col.3 line 29 and, "WLAN environment" operable generally pursuant to the IEEE 802.11 standard).

Regarding claim 13, Whitehead discloses everything as claim 1 above. More specifically, Whitehead discloses a wireless communication network that includes a plurality of basic service sets, wherein each of the plurality of basic service sets comprises: access point; and plurality of stations (see col.4 lines 45-60), wherein the access point includes an AP processing module and AP memory, wherein the AP memory includes operational instructions (see col.9 line 48 through col.10 line 3).

Regarding claims 14 and 25, Whitehead discloses wherein the STA memory further comprises operational instructions (see col.1 lines 56-57, memory is inherent for storing software to perform wireless communications) that cause the one of the plurality of stations to transmit the packet by: transmitting the packet to include an indicated power level of transmission to identify the first power level (see col.9 lines 48-67 and col.3 lines 5-29).

Regarding claim 17, Whitehead discloses everything as claims 1, 6 and 13. More specifically, Whitehead discloses third and fourth power level (see col.3 lines 6-29, "power levels and power constraint list" corresponds to third and fourth power level.

Art Unit: 2618

Regarding claims 18 and 32, Whitehead discloses wherein the AP memory further comprises operational instructions see col.1 lines 56-57, (memory is inherent for storing software to perform wireless communications) that cause the AP processing module to transmit the packet by: transmitting the second packet to include an indicated power level of transmission to indicate the third power level (see col.9 lines 48-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 21, 23, 33 and 35, are rejected under 35 U.S.C. 103(a) as being unpatentable over Eibling et al. (US Patent 7,085,580).

Regarding claims 8 and 33, Eibling et al. discloses a method for transmit power control of transmitting wireless device, the method comprises:

transmitting, by the transmitting wireless device, a packet to a targeted wireless device via a wireless channel at a first power level (see col.2 lines 27-46, the first power level from the base station is being measured by a mobile station);

determining, by the targeted wireless device, signal strength of the packet received via the wireless channel to produce a determined signal strength (see col.2 lines 27-46);

transmitting, by the targeted wireless device, the determined signal strength of the packet to transmitting wireless device (see col.2 lines 27-46);

Art Unit: 2618

determining, by the transmitting wireless device, adequacy of the first power level based on the determined signal strength (see col.2 lines 47-58);

when the first power level is not adequate, determining, by the targeted wireless device, a second power level for the transmitting wireless device based on the determination of the adequacy of the first power level (see col.2 lines 45-57).

adjusting, by the transmitting wireless device, transmit power from the first power level to the second power level when the first power level is not adequate (see col.2 lines 45-57).

Regarding claim 21, Seibling et al. disclose everything as claim 8 above. More specifically, Seibling discloses a wireless communication network that includes a plurality of basic service sets, wherein each of the plurality of basic service sets comprises: access point; and plurality of stations (see fig.1), wherein the access point includes an AP processing module and AP memory, wherein the AP memory includes operational instructions (memory, operational instructions is inherently included in CDMA system for performing in wireless power control communication network).

Regarding claims 23 and 35, Seibling et al. discloses wherein the STA memory further comprises operational instructions that cause the one of the plurality of stations (see fig.1) to transmit the packet by: transmitting the packet to include an indicated power level of transmission to identify the first power level (memory, operational instructions is inherently included in CDMA system for performing in wireless power control communication network).

Claims 3, 15 and 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehead in view of Park (US Patent 6,212,364).

Art Unit: 2618

Regarding claim 3, 15, 19-20 and 30, Whitehead disclose everything as claim 1 above. More specifically, Whitehead discloses computing accuracy of the recaptured data (see col.3 lines 1-5), demodulating the baseband signal and converting the radio frequency signal into a base-band signal (the receiver device is inherently include a demodulator to demodulate a carrier frequency and convert radio frequency to baseband). However, Whitehead fail to disclose separating the recaptured data to isolate the indicated power level of transmission from data; generating the power level to be increased when the RSSI below corresponding minimum performance thresholds; and generating the power level to be decreased when the RSSI above acceptable performance thresholds.

Park discloses separating the recaptured data to isolate the indicated power level of transmission from data (13, fig.1); generating the power level to be increased when the RSSI below corresponding minimum performance thresholds; and generating the power level to be decreased when the RSSI above acceptable performance thresholds (see col.2 lines 39-59). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Whitehead et al. with the above teaching of Park in order to provide circuitries to receive RF carrier frequencies, to demodulate frequency, to analyze reception signal quality and accordingly provide power indication to the remote stations.

Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eibling et al. (US Patent 7,085,580) in view of Park (US Patent 6,212,364).

Regarding claims 9 and 22, Eibling et al. disclose everything as claim 21 above. More specifically, Eibling et al. discloses computing accuracy of the recaptured data (col.2 lines 27-46), demodulating the baseband signal and converting the radio frequency signal into a baseband signal (see col.1 line 62 through col.2 line13, the receiver device is inherently include a demodulator to demodulate a carrier frequency and convert radio frequency to baseband). However, Eibling et al. fail to disclose separating the recaptured data to isolate the indicated power level of transmission from data; generating the power level to be increased when the RSSI below corresponding minimum performance thresholds; and generating the power level to be decreased when the RSSI above acceptable performance thresholds.

Park discloses separating the recaptured data to isolate the indicated power level of transmission from data (13, fig.1); generating the power level to be increased when the RSSI below corresponding minimum performance thresholds; and generating the power level to be decreased when the RSSI above acceptable performance thresholds (see col.2 lines 39-59). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Eibling et al. with the above teaching of Park in order to provide circuitries to receive RF carrier frequencies, to demodulate frequency, to analyze reception signal quality and accordingly provide power indication to the remote stations.

Claims 10-12 and 34, are rejected under 35 U.S.C. 103(a) as being unpatentable over Eibling et al. (US Patent 7,085,580) in view of Whitehead (US Patent 5,732,077).

Art Unit: 2618

Regarding claim 10, Eibling et al. the receiving device responds with a power indicative signal; however Eibling et al. fail to disclose an indicated power level of transmission by the transmitting wireless device.

Whitehead discloses an indicated power level of transmission by the transmitting wireless device (see col.3 lines 5-29). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Eibling et al. with the above teaching of Whitehead in order to exchange information between two stations including power levels and other interference related information.

Regarding claims 11-12 and 34, Eibling et al. fail to disclose an 802.11 wireless network Whitehead discloses and 802.11 wireless network (see col.2 line 49 through col.3 line 29 and, "WLAN environment" operable generally pursuant to the IEEE 802.11 standard). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Eibling et al. with the above teaching of Whitehead in order to provide Wireless local network which using 802.11 protocol.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'EBC' or similar, written in a cursive style.

October 12, 2006